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OM protein - protein search, using sw model

Run on: March 14, 2001, 16:12:15 ; Search time 18.12 Seconds
(without alignments)
856.732 Million cell updates/sec

Title: US-09-455-486-6
Perfect score: 2351
Sequence: 1 MESISMWSPKSLSETCLPN.....ALVPLSIVILLQLQLCRYPD 454

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 268485 seqs, 34193795 residues

Total number of hits satisfying chosen parameters: 268485

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : A_Geneseq_36:*

- 1: /SIDS1/gcgdata/geneseq/geneseq/AA1980.DAT:*
- 2: /SIDS1/gcgdata/geneseq/geneseq/AA1981.DAT:*
- 3: /SIDS1/gcgdata/geneseq/geneseq/AA1982.DAT:*
- 4: /SIDS1/gcgdata/geneseq/geneseq/AA1983.DAT:*
- 5: /SIDS1/gcgdata/geneseq/geneseq/AA1984.DAT:*
- 6: /SIDS1/gcgdata/geneseq/geneseq/AA1985.DAT:*
- 7: /SIDS1/gcgdata/geneseq/geneseq/AA1986.DAT:*
- 8: /SIDS1/gcgdata/geneseq/geneseq/AA1987.DAT:*
- 9: /SIDS1/gcgdata/geneseq/geneseq/AA1988.DAT:*
- 10: /SIDS1/gcgdata/geneseq/geneseq/AA1989.DAT:*
- 11: /SIDS1/gcgdata/geneseq/geneseq/AA1990.DAT:*
- 12: /SIDS1/gcgdata/geneseq/geneseq/AA1991.DAT:*
- 13: /SIDS1/gcgdata/geneseq/geneseq/AA1992.DAT:*
- 14: /SIDS1/gcgdata/geneseq/geneseq/AA1993.DAT:*
- 15: /SIDS1/gcgdata/geneseq/geneseq/AA1994.DAT:*
- 16: /SIDS1/gcgdata/geneseq/geneseq/AA1995.DAT:*
- 17: /SIDS1/gcgdata/geneseq/geneseq/AA1996.DAT:*
- 18: /SIDS1/gcgdata/geneseq/geneseq/AA1997.DAT:*
- 19: /SIDS1/gcgdata/geneseq/geneseq/AA1998.DAT:*
- 20: /SIDS1/gcgdata/geneseq/geneseq/AA1999.DAT:*
- 21: /SIDS1/gcgdata/geneseq/geneseq/AA2000.DAT:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	ID	Description
1	901	38.3	173 21 Y58195	Human STRAP-2 prot
2	736	31.3	141 21 Y52589	Human prostate gro
3	717	30.5	339 21 Y58194	Human STRAP-1 prot
4	695	29.6	339 20 W86309	Kidney injury asso
5	341	14.5	128 21 Y58197	Human STRAP-4 prot
6	324	13.8	132 21 Y95017	Human secreted prot
7	248	10.5	128 21 Y58196	Human STRAP-3 prot
8	107.5	4.6	695 13 R27558	FSHR. Homo sapien
9	107.5	4.6	695 14 R42082	FSH receptor. Hom
10	107.5	4.6	695 18 W14782	FSH receptor. Hom
11	107	4.6	34 21 Y58199	Human STRAP-1 pept
12	107	4.6	95 20 Y11840	Human 5' EST secre

13	102	4.3	109	20	Y12304	Human 5' EST secre
14	101	4.3	476	21	Y54039	Amino acid sequenc
15	101	4.3	503	13	R22667	50 kD subunit of S
16	99	4.2	365	21	Y70344	Human G protein-co
17	99	4.2	375	19	W51253	G-protein coupled
18	99	4.2	531	19	W51251	G-protein coupled
19	98	4.2	482	13	R21409	NADH dehydrogenase
20	98	4.2	692	11	R08038	Rat testicular lut
21	98	4.2	695	14	R30524	N-terminal of LH r
22	97.5	4.1	390	18	W06532	Gonadotropin recep
23	97	4.1	471	21	Y54040	Amino acid sequenc
24	97	4.1	699	14	R30517	N-terminal of LH r
25	96.5	4.1	353	21	Y54096	Enzyme EFSK involv
26	96.5	4.1	353	21	Y43798	Amino acid sequenc
27	96.5	4.1	686	20	Y56088	Yeast Fe3+-reducta
28	95	4.0	695	14	R30506	N-terminal of LH r
29	95	4.0	698	14	R30505	N-terminal of LH r
30	94	4.0	292	21	Y79251	Human elongase MAE
31	94	4.0	293	21	Y79256	Putative human hom
32	94	4.0	299	21	Y83932	Human elongase HSE
33	94	4.0	471	20	Y20061	B. burgdorferi ant
34	94	4.0	490	20	Y20060	B. burgdorferi ant
35	93	4.0	365	19	W51252	G-protein coupled
36	92.5	3.9	634	14	R30520	N-terminal of LH r
37	91.5	3.9	495	15	R44923	GGSI glucose sensi
38	91.5	3.9	495	19	R49026	Saccharomyces cere
39	91	3.9	689	14	R30509	N-terminal of LH r
40	89.5	3.8	495	14	R41362	TSS1. Saccharomyc
41	89.5	3.8	495	18	W37441	Trehalose-6-phosph
42	89.5	3.8	495	18	W37427	Yeast trehalose-6-
43	89.5	3.8	968	21	Y78946	Polycystic kidney
44	89	3.8	660	20	Y34691	Chlamydia pneumoni
45	89	3.8	1582	16	R77088	Hamster sulphonylu

ALIGNMENTS

RESULT 1

Y58195
ID Y58195 standard; Protein; 173 AA.

XX

AC Y58195;

XX

DT 14-MAR-2000 (first entry)

XX

DE Human STRAP-2 protein (portion).

XX

DE Serpentine transmembrane antigen of the prostate; STRAP-2; prostate;

KW transmembrane domain; type IIIa membrane protein; expression; cancer;

KW antigen; immunisation; immune response; cellular; humoral;

KW anticancer vaccine; antibody; detection; diagnosis;

KW prognosis; monitoring; susceptibility; therapeutic inhibitor;

KW drug targeting; recombinant protein.

XX

OS Homo sapiens.

XX

PN WO9962941-A2.

XX

PD 09-DEC-1999.

XX

PF 01-JUN-1999; 99WO-US12157.

XX

PR 01-JUN-1998; 98US-0087520.

XX

PR 30-JUN-1998; 98US-0091183.

XX

XX (UROC-) UROGENESYS INC.

PA (AFAR/) AFAR D E.

PA (HUBE/) HUBERT R S.

PA (LEON/) LEONG K.

PA (RAIT/) RAITANO A B.

PA (SAFF/) SAFFRAN D C.

XX

PI Afor DB, Hubert RS, Leong K, Raitano AB, Saffran DC;
 DR WPI; 2000-072832/06.
 DR N-PSDB; 249398.
 XX
 XX Novel proteins useful as diagnostic markers and therapeutic targets,
 PT particularly for prostatic cancer
 XX
 PS Claim 10: Fig 9; 83pp; English.
 XX
 CC This sequence represents a portion of a novel human protein,
 CC STRAP-2 (serpentine transmembrane antigen of the prostate). STRAP-2 is
 CC highly homologous to STRAP-1 (Y58194), particularly throughout the
 CC predicted transmembrane domains, but is encoded by a distinct gene,
 CC localised to chromosome 7q21. STRAP-1 is the prototype member of the
 CC STRAP family of proteins (Y58194-Y58197) which exhibit a high degree of
 CC structural conservation, but which show no significant structural
 CC homology to known human proteins. STRAP-1 is characterised by six
 CC transmembrane domains and intracellular N- and C-termini, suggesting
 CC that it folds in a "serpentine" manner into three extracellular and two
 CC intracellular loops. STRAP-2 exhibits a markedly different mRNA and
 CC protein expression profile relative to STRAP-1, suggesting that these
 CC two STRAP family members are differentially regulated. STRAP-2 expression
 CC appears to be very prostate specific, as significant mRNA expression is
 CC not detected in a variety of normal tissues. STRAP-2 expression is
 CC downregulated in some prostate cancers, whereas STRAP-1 expression
 CC remains at a high level. In non-prostate cancers, STRAP-2 expression is
 CC generally absent. The function of the STRAP proteins is not known. They
 CC may be ion channels (from the presence of six transmembrane domains, a
 CC feature which is shared by certain ion channels) or gap-junction proteins
 CC (from immunohistochemical staining). STRAP-1 and STRAP-2 are cell-surface
 CC tumour antigens. Immunisation with a STRAP protein induces cellular and
 CC humoral immune responses against STRAP-expressing cells. STRAP proteins
 CC may be used to identify specific-binding agents, to produce anticancer
 CC vaccines and to generate specific antibodies. The antibodies may be used
 CC for detection, prognosis, and monitoring of cancers (or susceptibility to
 CC cancer), as therapeutic inhibitors or to target therapeutic agents to
 CC their site of action. STRAP nucleic acids may be used for recombinant
 CC protein production, as diagnostic and prognostic reagents, for
 CC identifying STRAP-expressing cells for screening inhibitors of STRAP
 CC expression and for therapeutic modulation/inhibition of STRAP
 CC expression. Since high levels of STRAP proteins are exposed on the cell
 CC surface, they are easily targeted by systemically administered agents,
 CC and because they are expressed mainly on prostatic epithelial cells,
 CC agents targeted to them should have minimal side effects on other
 CC tissues.
 XX
 XX Sequence 173 AA;

Query Match 38.3%; Score 901; DB 21; Length 173;
 Best Local Similarity 100.0%; Pred. No. 1.9e-89;
 Matches 173; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 246 DFYKIPTEIVNKTPIVAITLLSLVYLAGLLAAAYLYGTYKRRFPFWLTLQCRKQL 305
 Db 1 dfykipeivnktlpivaitllslvylagllaaaylygtykrrfpfwlwtlqcrkql 60
 QY 306 GLLSFFAMVHVAYSCLIPMRRSERYFLNMAVQQVHANIEWSNEEVEVRIEMYSFGI 365
 Db 61 gllsffamvhvaysclipmrirseryflnmayqqvhanienwsneeevriemysifgi 120
 QY 366 MSGLLSLLAVTSTPSVSNALNWRFSFIQSTLGYVALLSTFHVILYGWKRA 418
 Db 121 mslgllslavtsipvsvalnwrfsfiqstlgyvallstfhvilygwkra 173

RESULT 2

Y52589

ID Y52589 standard; Protein; 141 AA.

XX AC Y52589;

XX

DT 07-MAR-2000 (first entry)
 DE Human prostate growth-associated membrane protein PGAMP-1.
 XX
 XX Prostate growth-associated membrane protein; PGAMP-1; prostate;
 KW consensus; antibody; screening; modulator; agonist; antagonist;
 KW therapeutic agent; cancer; solid tumour; leukaemia; lymphoma;
 KW reproductive disorder; infertility; endometriosis;
 KW polycystic ovarian syndrome; prostatitis; recombinant expression;
 KW gene therapy; antisense therapy; ribozyme; diagnosis; diagnosis;
 KW monitoring; immunoassay; targeting; drug delivery; drug screening.
 XX
 OS Homo sapiens.
 XX
 XX Key Location/Qualifiers
 FH Modified-site 15
 FT /note= "Phosphorylated by protein kinase C"
 FT Modified-site 35
 FT /note= "Phosphorylated by casein kinase II"
 FT Domain 44..67
 FT /note= "Transmembrane domain 1"
 FT Domain 81..102
 FT /note= "Transmembrane domain 2"
 FT Modified-site 110
 FT /note= "Phosphorylated by tyrosine kinase"
 FT Domain 117..135
 FT /note= "Transmembrane domain 3"
 XX WO9961469-A2.
 PD 02-DEC-1999.
 XX 17-MAY-1999; 99WO-US10888.
 XX 22-MAY-1998; 98US-0083521.
 XX (INCY-) INCYTE PHARM INC.
 XX Lal P, Guegler KJ, Corley NC;
 PI WPI; 2000-062671/05.
 XX N-PSDB; 246296.
 XX
 PT New human prostate growth-associated membrane proteins, for treating or
 XX preventing cancer and reproductive disorders
 XX
 PS Claim 1; Fig 1; 72pp; English.
 XX
 CC This sequence represents human prostate growth-associated protein
 CC PGAMP-1. Nucleotides encoding PGAMP-1 were initially identified
 CC in a prostate cDNA library, this sequence representing a consensus.
 CC Human prostate growth associated membrane proteins PGAMP-1 and PGAMP-2
 CC (Y52590) may be used to raise specific antibodies and to screen for
 CC specific modulators (agonists, antagonists or other potential
 CC therapeutic agents). Antagonists of PGAMP are used to treat or prevent a
 CC wide range of cancers (solid tumours, leukaemia, lymphoma etc.) and
 CC reproductive disorders (such as infertility, endometriosis, polycystic
 CC ovarian syndrome, prostatitis). PGAMP-encoding nucleic acids, its
 CC fragments and complements, may be used for recombinant production of
 CC PCAMP proteins, in gene therapy (e.g., as antisense molecules, triplex-
 CC forming molecules and ribozymes), and as diagnostic probes and primers.
 CC Anti-PGAMP antibodies may be used for diagnosis and monitoring of
 CC PGAMP-related diseases by standard immunoassays, as therapeutic
 CC antagonists (including targeted delivery of other drugs), and in
 CC competitive drug screens.
 XX
 XX Sequence 141 AA;

Query Match 31.3%; Score 736; DB 21; Length 141;
 Best Local Similarity 100.0%; Pred. No. 9.7e-72;
 Matches 141; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

XX Serpentine transmembrane antigen of the prostate; STRAP-3; placenta;
KW transmembrane domain; type IIIa membrane protein; expression; cancer;
KW antigen; immunisation; immune response; cellular; humoral; prostate;
KW anticancer vaccine; antibody; detection; diagnosis; testis;
KW prognosis; monitoring; susceptibility; therapeutic inhibitor;
KW drug targeting; recombinant protein; expressed sequence tag; EST.
XX Homo sapiens.
XX WO9962941-A2.
XX 09-DEC-1999.
XX 01-JUN-1999; 99WO-US12157.
XX 01-JUN-1998; 98US-0087520.
XX 30-JUN-1998; 98US-0091183.
XX (UROC-) UROGENESYS INC.
XX (AFAR/) AFAR D E.
XX (HUBE/) HUBERT R S.
XX (LEON/) LEONG K.
XX (RAIT/) RAITANO A B.
XX (SAFE/) SAFFRAN D C.
XX Afar DE, Hubert RS, Leong K, Raitano AB, Saffran DC;
XX WPI: 2000-072832/06.
XX N-PSDB: 249401.
XX Novel proteins useful as diagnostic markers and therapeutic targets,
XX particularly for prostatic cancer -
XX Example 5; Fig 11B; 83pp; English.
XX This sequence represents a novel human protein, STRAP-3
XX (serpentine transmembrane antigen of the prostate) encoded
XX by human testis EST (expressed sequence tag) AII39607. STRAP-3 is
XX a transmembrane protein closely related to STRAP-1 (Y58194) and STRAP-2
XX (Y58195), but its expression is predominantly restricted to placenta
XX although there is a smaller degree of expression in normal prostate
XX tissue. It does not appear to be expressed in other normal tissue or
XX in prostate cancer. The STRAP-3 gene has been localised to chromosome
XX 7q21. STRAP-1 is the prototype member of the STRAP family of proteins
XX (Y58194-Y58197) which exhibit a high degree of structural conservation,
XX but which show no significant structural homology to known human
XX proteins. STRAP-1 is characterised by six transmembrane domains and
XX intracellular N- and C-termini, suggesting that it folds in a
XX "serpentine" manner into three extracellular and two intracellular
XX loops. The function of the STRAP proteins is not known. They may be
XX ion channels (from the presence of six transmembrane domains, a feature
XX which is shared by certain ion channels) or gap-junction proteins
XX (from immunohistochemical staining). STRAP-1 and STRAP-2 are cell-surface
XX tumour antigens. Immunisation with a STRAP protein induces cellular and
XX humoral immune responses against STRAP-expressing cells. STRAP proteins
XX may be used to identify specific-binding agents, to produce anticancer
XX vaccines and to generate specific antibodies. The antibodies may be used
XX for detection, prognosis and monitoring of cancers (or susceptibility to
XX cancer), as therapeutic inhibitors or to target therapeutic agents to
XX their site of action. STRAP nucleic acids may be used for recombinant
XX protein production, as diagnostic and prognostic reagents, for
XX identifying STRAP-expressing cells for screening inhibitors of STRAP
XX expression and for therapeutic modulation/inhibition of STRAP
XX expression. Since high levels of STRAP proteins are exposed on the cell
XX surface, they are easily targeted by systemically administered agents,
XX and because they are expressed mainly on prostatic epithelial cells,
XX agents targeted to them should have minimal side effects on other
XX tissues.
XX Sequence 128 AA;

Query Match 10.5%; Score 248; DB 21; Length 128;
Best Local Similarity 44.4%; Pred. No. 4.7e-19;
Matches 44; Conservative 20; Mismatches 35; Indels 0; Gaps 0;
OY 346 ENSWNEEVRRIEYISFGIMSLGSLLSLAVTSIPSYSNALNWRPFSFIQSTLCYVALLI 405
Db 3 enpfstssawlsdsyvalgfflvgfllgltspvsnvwnrefrvqskigyltlll 62
OY 406 STEHVLIIYGNKFAFEERYRFTPTPNFVLALVLPISVIL 444
Db 63 ctahtlvvggkrflspnlrwyipaayvlgliipctvlv 101
RESULT 8
R27558
ID R27558 standard; Protein; 695 AA.
XX AC R27558;
XX DT 04-MAR-1993 (first entry)
XX DE FSHR.
XX KW Human; follicle stimulating hormone receptor; maturation;
XX KW spermatogenesis; birth control.
XX OS Homo sapiens.
XX FH Key
XX FT Location/Qualifiers
XX FT 1..17
XX FT /note= "signal peptide"
XX FT Protein
XX FT 18..695
XX FT /note= "mature hFSHR "
XX FT Domain
XX FT 18..366
XX FT /note= "N-terminal extracellular domain"
XX FT Domain
XX FT 367..620
XX FT /note= "transmembrane domain"
XX FT Domain
XX FT 367..387
XX FT /note= "transmembrane region I"
XX FT Domain
XX FT 399..421
XX FT /note= "transmembrane region II"
XX FT Domain
XX FT 444..465
XX FT /note= "transmembrane region III"
XX FT Domain
XX FT 486..508
XX FT /note= "transmembrane region IV"
XX FT Domain
XX FT 529..550
XX FT /note= "transmembrane region V"
XX FT Domain
XX FT 574..597
XX FT /note= "transmembrane region VI"
XX FT Domain
XX FT 609..630
XX FT /note= "transmembrane region VII"
XX FT Domain
XX FT 631..695
XX FT /note= "C-terminal intracellular domain"
XX WO9216620-A.
XX 01-OCT-1992.
XX 02-JAN-1992; 92WO-US00122.
XX 15-MAR-1991; 91US-0670085.
XX (ISTF) ARS APPL RES SYST HOLDING NV.
XX Cheng SYV, Kelton CA, Nugent NP, Schweickhardt RL;
XX WPI: 1992-349206/42.
XX N-PSDB: Q29377.
XX Pure human FSH receptor, fragments and mutants - for preventing
XX follicle growth, maturation and spermatogenesis, also for use of
XX appropriate cell lines for bio-assays of FSH

Db	Accession	Score	Length	Indels	Gaps
Db	409	100	100	0	0
Qy	399	100	100	0	0
Db	456	100	100	0	0
Qy	436	100	100	0	0
Db	516	100	100	0	0
RESULT	11				
Y58199					
ID	Y58199	standard; peptide; 34 AA.			
XX	XX	Y58199;			
XX	XX	14-MAR-2000 (first entry)			
DT	DT	Human STRAP-1 peptide, corresponding to STRAP-1 extracellular region 2.			
XX	XX	Serpentine transmembrane antigen of the prostate; STRAP-1; prostate;			
XX	XX	transmembrane domain; type IIa membrane protein; expression; cancer;			
KW	KW	prostate cancer; bladder cancer; colon cancer; pancreatic cancer;			
KW	KW	ovarian cancer; tumour antigen; immunisation; immune response;			
KW	KW	cellular; humoral; anticancer vaccine; antibody; detection; diagnosis;			
KW	KW	prognosis; monitoring; susceptibility; therapeutic inhibitor;			
XX	XX	drug targeting; recombinant protein.			
OS	OS	Synthetic.			
OS	OS	Homo sapiens.			
XX	XX	W09962941-A2.			
XX	XX	09-DEC-1999.			
XX	XX	01-JUN-1999; 99WO-US12157.			
XX	XX	01-JUN-1998; 98US-0087520.			
PR	PR	30-JUN-1998; 98US-0091183.			
XX	XX	(UROC-) UROGENESYS INC.			
PA	PA	(AFAR/) AFAR D E.			
PA	PA	(HUBE/) HUBERT R S.			
PA	PA	(LEON/) LEONG K.			
PA	PA	(RAIT/) RAITANO A B.			
PA	PA	(SAFE/) SAFEFRAN D C.			
XX	XX	Afar DE, Hubert RS, Leong K, Raitano AB, Saffran DC;			
XX	XX	WPI; 2000-072832/06.			
XX	XX	Novel proteins useful as diagnostic markers and therapeutic targets,			
XX	XX	particularly for prostatic cancer			
XX	XX	Disclosure; Page 22; 83pp; English.			
XX	XX	Sequences Y58198-Y58200 represent synthetic peptides that correspond			
CC	CC	to the extracellular regions of STRAP-1 (serpentine transmembrane			
CC	CC	antigen of the prostate, Y58194). These peptides were used to raise			
CC	CC	monoclonal anti-STRAP-1 antibodies. STRAP-1 is the prototype			
CC	CC	member of the STRAP family of proteins (Y58194-Y58197) which			
CC	CC	exhibit a high degree of structural conservation, but which show			
CC	CC	no significant structural homology to known human proteins. The show			
CC	CC	gene has been localised to chromosome 7p22. STRAP-1 is thought to be a			
CC	CC	type IIa membrane protein and is expressed predominantly in prostate			
CC	CC	cells in normal human tissues. Structurally, STRAP-1 is a 339 amino			
CC	CC	acid protein characterised by six transmembrane domains and intracellular			
CC	CC	N- and C-termini, suggesting that it folds in a "serpentine" manner into			
CC	CC	three extracellular and two intracellular loops. STRAP-1 mRNA and protein			
CC	CC	expression is maintained at high levels and throughout all stages of			
CC	CC	prostate cancer. STRAP-1 mRNA and/or protein is also overexpressed in			

CC certain other cancers, including bladder, colon, pancreatic and ovarian
 CC cancer. The function of the STRAP proteins is not known. They may be ion
 CC channels (from the presence of six transmembrane domains, a feature
 CC which is shared by certain ion channels) or gap-junction proteins
 CC (from immunohistochemical staining). STRAP-1 and STRAP-2 are cell-surface
 CC tumour antigens. Immunisation with a STRAP protein induces cellular and
 CC humoral immune responses against STRAP-expressing cells. STRAP proteins
 CC may be used to identify specific-binding agents, to produce anticancer
 CC vaccines and to generate specific antibodies. The antibodies may be used
 CC for detection, prognosis, and monitoring of cancers (or susceptibility to
 CC cancer), as therapeutic inhibitors or to target therapeutic agents to
 CC their site of action. STRAP nucleic acids may be used for recombinant
 CC protein production, as diagnostic and prognostic reagents, for
 CC identifying STRAP-expressing cells for screening inhibitors of STRAP
 CC expression and for therapeutic modulation/inhibition of STRAP
 CC expression. Since high levels of STRAP proteins are exposed on the cell
 CC surface, they are easily targeted by systemically administered agents,
 CC and because they are expressed mainly on prostatic epithelial cells,
 CC agents targeted to them should have minimal side effects on other
 CC tissues.

XX Sequence 34 AA;

Query Match 4.6%; Score 107; DB 21; Length 34;
 Best Local Similarity 58.8%; Pred. No. 0.00011;
 Matches 20; Conservative 5; Mismatches 9; Indels 0; Gaps 0;

Qy 326 RRSRYLFNLNMQVQVHANIENSWNEEEVWRIEM 359

Db 1 rrsrykllnwayqqvqknkedawlehvwrmei 34

RESULT 12

Y11840
 ID Y11840 standard; Protein; 95 AA.

XX AC Y11840;

XX DT 18-JUN-1999 (first entry)

XX DE Human 5' EST secreted protein SEQ ID No: 440.

XX KW Human; secreted protein; EST; expressed sequence tag; diagnosis;
 KW forensic; gene therapy; chromosome mapping; signal peptide;
 KW upstream regulatory sequence; cytokine activity; cell proliferation;
 KW differentiation; haematopoiesis regulation; tissue growth regulation;
 KW reproductive hormone regulation; chemotactic; chemokinetic; haemostatic;
 KW thrombolytic; anti-inflammatory; tumour inhibition.

XX OS Homo sapiens.

XX PN WO9906550-A2.

XX PD 11-FEB-1999.

XX PF 31-JUL-1998; 98WO-IB01232.

XX PR 01-AUG-1997; 97US-0905144.

XX PA (GEST) GENSET.

XX PI Duclert A, Dumas Milne Edwards J, Lacroix B;

XX DR WPI; 1999-153780/13.

XX DR N-PSDB; X40562.

XX PT New isolated prostate-derived nucleic acids - used to develop
 PT products which may have cytokine, immune regulatory, haematopoiesis
 PT regulating, anti-inflammatory or tumour inhibition activity

XX PS Claim 34; Page 577; 675pp; English.

XX

CC X40438 to X40715 represent 5' expressed sequence tags (ESTs) for human
 CC secreted proteins expressed in prostate, and encode the proteins given in
 CC Y11716 to Y11993 respectively. The proteins given represent the signal
 CC peptide and an N-terminal fragment of a secreted protein. The nucleic
 CC acid sequences can be used for producing secreted human gene products.
 CC They can also be used to develop products for diagnosis and therapy. The
 CC proteins obtained may have cytokine activity, cell proliferation and
 CC differentiation activity, haematopoiesis regulating activity, tissue
 CC growth regulating activity, reproductive hormone regulating activity,
 CC chemotactic/chemokinetic activity, haemostatic and thrombolytic activity,
 CC receptor/ligand activity, anti-inflammatory activity, tumour inhibition
 CC activity or other activities. The products can be used in forensic, gene
 CC therapy and chromosome mapping procedures. The sequences can also be used
 CC for obtaining corresponding promoter sequences. The nucleic acids
 CC encoding the signal peptides can be used for directing extracellular
 CC secretion of a polypeptide or the insertion of a polypeptide into a
 CC membrane, or importing a polypeptide into a cell.

XX Sequence 95 AA;

Query Match 4.6%; Score 107; DB 20; Length 95;
 Best Local Similarity 46.5%; Pred. No. 0.00052;
 Matches 20; Conservative 8; Mismatches 15; Indels 0; Gaps 0;

Qy 208 LFTLRGPPVVAISLATFFFLYSFVRDVIHPYARNQSDFYKI 250

Db 52 lfpqwhlpikiaaiasitflytlilrevhplatshtggyfyki 94

RESULT 13

Y12304

ID Y12304 standard; Protein; 109 AA.

XX AC Y12304;

XX DT 17-JUN-1999 (first entry)

XX DE Human 5' EST secreted protein SEQ ID NO:335.

XX KW Human; secreted protein; EST; expressed sequence tag; diagnosis;
 KW forensic; gene therapy; chromosome mapping; signal peptide;
 KW upstream regulatory sequence; cytokine activity; cell proliferation;
 KW differentiation; haematopoiesis regulation; tissue growth regulation;
 KW reproductive hormone regulation; chemotactic; chemokinetic; haemostatic;
 KW thrombolytic; anti-inflammatory; tumour inhibition.

XX OS Homo sapiens.

XX PN WO9906548-A2.

XX PD 11-FEB-1999.

XX PF 31-JUL-1998; 98WO-IB01222.

XX PR 01-AUG-1997; 97US-0905135.

XX PA (GEST) GENSET.

XX PI Duclert A, Dumas Milne Edwards J, Lacroix B;

XX DR WPI; 1999-153778/13.

XX DR N-PSDB; X41137.

XX PT New nucleic acids encoding human secreted proteins - obtained from
 PT cDNA libraries prepared from e.g. liver, ovary, brain, prostate,
 PT kidney, lung, umbilical cord, placenta and colon tissue

XX PS Claim 27; Page 677; 824pp; English.

XX X41094 to X41347 represent 5' expressed sequence tags (ESTs) for human
 CC secreted proteins, and encode the proteins given in Y12261 to Y12514,
 CC respectively. The proteins given represent the signal peptide and an

CC N-terminal fragment of a secreted protein. The nucleic acid sequences
CC can be used for producing secreted human gene products. They can also
CC be used to develop products for diagnosis and therapy. The proteins
CC obtained may have cytokine activity, cell proliferation/differentiation
CC activity, hematopoiesis regulating activity, tissue growth regulating
CC activity, reproductive hormone regulating activity, chemotactic/
CC chemokinetic activity, haemostatic and thrombolytic activity, receptor/
CC ligand activity, anti-inflammatory activity, tumour inhibition activity
CC or other activities. The products can be used in forensic, gene therapy
CC and chromosome mapping procedures. The sequences can also be used for
CC obtaining corresponding promoter sequences. The nucleic acids encoding
CC the signal peptide can be used for directing extracellular secretion of
CC a polypeptide or the insertion of a polypeptide into a membrane, or
CC importing a polypeptide into a cell.

XX Sequence 109 AA;

Query Match: 4.3%; Score 102; DB 20; Length 109;
Best Local Similarity 43.3%; Pred. No. 0.0022;
Matches 19; Conservative 8; Mismatches 17; Indels 0; Gaps 0;

QY 207 RLEFLWRGPVVVAISLATFFFLYSFVRDVIHPYARNOQSDFYKI 250
Db 66 qltpqwhlpkiaaiaiaxltfllycilrevxnplatslshqgyfyki 109

RESULT 14

Y54039
ID Y54039 standard; Protein; 476 AA.

XX AC Y54039;

XX 27-MAR-2000 (first entry)

XX Amino acid sequence of a modified yeast SceI endonuclease.

XX SceI endonuclease; phosphodiester bond; yeast; genetic engineering;
KW PCR; polymerase chain reaction; gene cloning.

XX Synthetic.
OS Saccharomyces cerevisiae.

XX EP972836-A2.

XX 19-JAN-2000.

XX 21-MAY-1999; 99EP-0110008.

XX 22-MAY-1998; 98JP-0141861.

XX (RIKA) INST PHYSICAL & CHEM RES.

XX Morishima N, Shibata T, Mizumura H;

XX WPI; 2000-099856/09.

XX N-PSDB; 237079.

XX New modified endonuclease capable of recognizing specific nucleotide
PT sequence, useful for genetic engineering techniques -

XX Claim 2; Page 18-21; 43pp; English.

XX The present sequence represents a modified SceI endonuclease. The
CC endonuclease hydrolyses the phosphodiester bond of a polynucleotide
CC chain. The endonuclease is the 50 kDa subunit of a yeast endonuclease.
CC The endonuclease gene was modified so that it could be
CC mass-produced in an expression system such as E. coli or yeast. The
CC endonuclease polynucleotide sequence was modified by substituting
CC codons that are unique to mitochondria (the gene is expressed in
CC mitochondria) with universal codons. The endonuclease cuts molecules
CC within sequence 237078, and is therefore useful in genetic engineering
CC techniques such as PCR (polymerase chain reaction) for cloning,

CC amplifying and analysing genes.

XX Sequence 476 AA;

Query Match 4.3%; Score 101; DB 21; Length 476;
Best Local Similarity 20.7%; Pred. No. 0.028;
Matches 52; Conservative 48; Mismatches 85; Indels 66; Gaps 12;

QY 62 NPKFASFFHHVDVTHEDALTKNI----IFVAIIRHHT-----SLWD 103
Db 254 npyfvnafsini-----ktnlakekiftnlynklydykinginnhipyynlk 302
QY 104 LRHLLVGKILIDVSNMRINQYPESNAEYLASLP--PDSLIVKGFNVVSAMALQLGPKDA 161
Db 303 innklpiknimdiknnyvlagftaadgsfissmynpdktilfkmm----- 347

QY 162 SRQVYICSNIIQARQOVIELARQLNFIPIIDGLSSAREIENPLRLFTLWRGPVVVAIS 221
Db 348 -rpsyvis-qvetrkeliylige----sfdl-sisnkvkvgnrkldkfkiftrttdeimk 400

QY 222 LATFFFLYSFVRDVIHPYARNOQSDFYKIP----IEIVNKTLPVATLTLVLVYLAGLLA 277
Db 401 -----filyyf--dkflplhdkqfnyikfrntfiksynwnrvfgvlise--yinniki 451

QY 278 AAYOLYYGTRY 288

Db 452 dnydyynnyky 462

RESULT 15

R22667

ID R22667 standard; Protein; 503 AA.

XX AC R22667;

XX 09-NOV-1992 (first entry)

XX 50 kD subunit of SceI.

XX Endonuclease SceI; PAGE; chromatography; ENS2 gene; mitochondria; ss.

XX Saccharomyces cerevisiae.

XX Key Location/Qualifiers

FH Domain 59..64

FT Domain 136..145

FT Domain 167..181

FT Domain 218..226

FT Domain 230..241

FT Domain 274..278

FT Domain 301..308

FT Domain 315..326

FT Domain 347..358

FT Domain 478..488

XX JP04104793-A.

XX 07-APR-1992.

XX 21-AUG-1990; 90JP-0219566.

XX 21-AUG-1990; 90JP-0219566.

XX (RIKA) RIKAGAKU KENKYUSHO.

XX WPI; 1992-164281/20.

XX N-PSDB; Q24134.

XX ENS2 gene encoding 50kD subunit of SceI endonuclease - used for mass
PT prodn. of recombinant endonuclease in eg. Saccharomyces IAM4274

XX Claim 1; Page 2; 4pp; Japanese.

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